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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,732	12/05/2006	Masugi Inoue	4035-0179PUS1	8874

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EXAMINER

DEAN, JR, JOSEPH E

ART UNIT	PAPER NUMBER
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4154

NOTIFICATION DATE	DELIVERY MODE
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09/08/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/579,732	Applicant(s) INOUE ET AL.	
	Examiner JOSEPH DEAN, JR	Art Unit 4154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 December 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/27/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made

2. Claims 1, 2, and 5, 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsirtsis (US 6,954,442) in view of Ohtani (US20030157936A1) (hereinafter Ohtani).

Per claim 1, Tsirtsis discloses a wireless communications system which uses at least two kinds of wireless communication networks, enables simultaneously to connect to a basic access network for executing signaling communication in which communication is controlled so as to be continuously switched (Abstract) and to a wireless access network for executing data communications (col. 8 lines 29-32) other than the signaling communication and comprises wireless communication terminals and a wireless communication server, characterized in that:

each of the wireless communication terminals comprises a seamless application processing unit for executing connection processing to the basic access network and connection/disconnection processing to and from the wireless access network (Abstract; col. 8 lines 49-55, i.e. end node moves between domains (fairly characterized as the two kinds of networks) and end node changes its point of connection from an access node to another), a basic access network client processing unit having a client function

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in the signaling communication (Abstract and col. 8 lines 57-60), a multicast communication node application processing unit for setting multicast reception using at least the two kinds of the wireless communication networks (col. 6 lines 44-47 & 50-52, broadcast feature –the novel session signaling message includes multiple end node session identifiers) , and respective network devices corresponding to the respective wireless communication networks(col. 7 lines 50-53); and

the wireless communication server comprises a home agent application processing unit for setting a multicast transmission using at least the two kinds of the wireless communication networks (col. 6 lines 22-31), and for managing the signaling communication for communicating the status of the respective wireless communication terminals there between(col. 7 lines 14-18)

and for managing the registration/update processing of the respective wireless communication terminals (col. 16, lines 54-66), a terminal status table for managing the status of the respective wireless communication terminals (col. 7, line 66 through col. 8 line 13 and col. 19-31, tables 1-11), a terminal configuration table for managing wireless communication network interfaces implemented in the respective wireless communication terminals (col. 7, line 66 through col.8 line 13 col. 19-31, table 1-11).

Tsirtsis does not disclose a basic access network server processing unit for notifying, when the wireless communication networks are continuously switched, the wireless communication terminals of a wireless communication network acting as a switching candidate, and a preference setting table for managing the order of the

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wireless communication networks acting as switching candidates when the wireless communication networks are continuously switched.

However, Ohtani discloses et al. discloses a basic access network server processing unit for notifying, when the wireless communication networks are continuously switched (page 2 paragraphs 0006, 0014, 0031-0032), the wireless communication terminals of a wireless communication network acting as a switching candidate (page 2 paragraphs 0006, 0014, 0031-0032), and a preference setting table for managing the order of the wireless communication networks acting as switching candidates when the wireless communication networks are continuously switched (page 5 paragraphs 0031-0032, 0077).

Therefore, taking the combined teachings of Tsirtsis and Ohtani as a whole, it would have been obvious to one of ordinary skill in this art at the time of invention by Applicant to incorporate the above listed items by Tsirtsis where a basic access network server processing unit for notifying, when the wireless communication networks are continuously switched the wireless communication terminals of a wireless communication network acting as a switching candidate and a preference setting table for managing the order of the wireless communication networks acting as switching candidates when the wireless communication networks are continuously switched suggested by Ohtani for the advantages of alerting networks of being switched and managing the order and sequence thereof.

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Per claim 2, in the obvious combination, Tsirtsis discloses the wireless communications system characterized in that:

the wireless communication server comprises two servers (col. 6 lines 52-57) of, a home agent server comprising the home agent application processing unit and the basic access network server processing unit (col. 2 lines 42-45), and

a resource server comprising the terminal status table, the terminal configuration table (col. 7 lines 66-67 , col. 8 lines 1-13 & table 1-11 i.e. session signaling server access resource and state information); and

the basic access network server processing unit obtains or registers the information in the respective tables of the resource server through a wired or wireless communication network (col. 8 lines 1-13 & table 1-11).

In addition, in the obvious combination, Ohtani discloses the preference setting table (paragraph 0077, Fig 4a).

Therefore, taking the combined teachings of Tsirtsis and Ohtani as a whole, it would have been obvious to one of ordinary skill in this art at the time of invention by Applicant to incorporate a preference setting table suggested by Ohtani for the advantages of listing out and providing order to the sequence of events.

Per claim 5, in the obvious combination, Tsirtsis discloses wherein when a user instructs to switch the wireless access network or the basic access network in the wireless communication terminal (col. 2 lines 3-20), after the seamless application processing unit notifies the multicast communication node application processing unit of switching of communication to the basic access network (col. 6 lines 48-57), the

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seamless application processing unit executes processing for changing network connection from the current wireless access network or basic access network to a specified wireless access network or basic access network (Col. 6 lines 48-57).

Per claim 6, in the obvious combination, Tsirtsis discloses wherein the terminal status table provides information relating to at least the identification symbols of the wireless communication terminals, the basic access network in use, the wireless access network in use, and a multicast communication status (refer to Table 1-11, message content and state information).

3. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsirtsis (US 6,954,442) and Ohtani (US20030157936A1) as applied to claims 1 or 2 above, and further in view of Hamasaki et al.US2004/0137901.

Per claim 3, as claimed in any one of claims 1 and 2, in the obvious combination discloses, Ohtani discloses wireless communication system wherein the seamless application processing unit of the wireless communication terminal executes connection processing to the basic access network (paragraph 0041, i.e. in which a mobile station detects one or more addition branch candidates constituting handover candidates in communications between the mobile station and a base station connected to the mobile station, and notifies a switching center connected to the base station of the addition branch candidates), the seamless application processing unit executes processing for sequentially trying to connect to a next candidate network (Abstract). Tsirtsis and Ohtani does not disclose, the seamless application processing unit tries to connect to the network with reference to basic access network candidate information that in advance

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records the wireless communication networks used as a candidate for the basic access network as well as when the network cannot be connected.

However, Hamasaki discloses wireless communication system wherein the seamless application processing unit tries to connect to the network with reference to basic access network candidate information that in advance records (page 2, paragraph 0016, i.e. the processor predicts when the MT will move to an area covered by the WLAN and based on the prediction, the processor pre-registers the MT with the WLAN so that when the MT enters the WLAN covered area), the wireless communication networks used as a candidate for the basic access network as well as when the network cannot be connected (page 1 paragraph 0006).

Therefore taking the combined teachings of Tsirtsis ,Ohtani and Hamasaki as a whole, it would have been obvious to one of ordinary skill in this art at the time of invention by Applicant to implement seamless application processing unit of the wireless communication terminal executes connection processing to the basic access network, seamless application processing unit executes processing for sequentially trying to connect to a next candidate networks wireless communication system by Ohtani and the seamless application processing unit tries to connect to the network with reference to basic access network candidate information that in advance records the wireless communication networks used as a candidate for the basic access network as well as when the network cannot be connected suggested by Hamasaki for the advantages of sending advance data to focus area with proper connectivity.

Per claim 4, in the obvious combination, Ohtani discloses the wireless communications system wherein when the network device of a wireless communication detects abnormal communication (paragraph 0088) of the wireless access network, after the seamless application processing unit notifies the multicast communication node processing application unit of switching of communication to the basic access network and then switches the communication (refer to explanation in claim 1), the seamless application processing unit tries to connect to a wireless access network acting as a next candidate (refer to explanation in claim 1) with reference to wireless access network candidate information that in advance records the candidates of wireless communication networks used as the wireless access network as well as when the network cannot be connected (refer to explanation in claim 3), the seamless application processing unit executes processing for sequentially trying to do network connection to a next candidate in the condition that the wireless access network is not the same as the basic access network and the basic access network is connected (refer to explanation in claim 3).

Therefore, taking the combined teachings of Tsirtsis, Ohtani and Hamasaki as a whole, it would have been obvious to one of ordinary skill in this art of the time of invention by Applicant to incorporate the network device of a wireless communication terminal detects abnormal communication of the wireless access network suggested by Ohtani for the advantages of detecting errors at various network element levels to improve overall efficiency.

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Contacts

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSEPH DEAN, JR whose telephone number is (571)270-7116. The examiner can normally be reached on Monday through Friday 7:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, VU Le can be reached on 571-272-7332. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JOSEPH DEAN, JR/
Examiner, Art Unit 4154

/Vu Le/
Supervisory Patent Examiner, Art Unit 4154